REMARKS

Claims in the Application. Claims 2, 6, 30, 52, 53, 56, 60, 61 and 88 have been cancelled from this application. Claims 45-49, 63, 87 and 89 have been amended. Claims 94 and 95 have been added to this application. Accordingly, Claims 1, 3-5, 7-29, 31-51, 54, 55, 57-59, 62-87 and 89-95 are active in this application.

Examiner's Rejection Over *Webb*. The Examiner has rejected Claims 1, 3-5, 7-29, 31-51, 54, 55, 57-59 and 62-93 under 35 U.S.C. § 102(b) as being anticipated by WO 99/54592 ("*Webb*"). This ground of rejection is traversed.

Webb discloses a method of treating an oil or gas well with a treated proppant composed of a water-soluble chemical, such as a scale inhibitor, impregnated (or coated) onto a porous material. During fracturing, the water-soluble chemical, upon dissolution, exits the pore spaces (or external surface) of the porous material. As a result, the amount of water produced by the well is decreased. The conductivity of the treated proppant further decreases upon contact with water. (P. 1, ll. 20-32; p. 4, ll. 11-24; page 4, line 16–20.) The only porous material disclosed in *Webb* are porous alumino-silicate ceramic beads which exhibit a porosity about 6 percent.

Independent Claim 18 of Applicants states that the strength of the treated porous particulate is greater than the strength of the untreated porous particulate. There is no reason to conclude that any change in strength occurs between the untreated porous particulate of *Webb* versus the particulate treated with the water-soluble chemical. The water-soluble chemical of *Webb* merely occupies the pore spaces of the particulate until dissolution of the chemical. There is no reason to conclude that the water-soluble chemical of *Webb* would have any effect on the strength of the particulate.

Independent Claims 64, 81 and 89 of Applicants reference the encapsulation or entrapment of a fluid within the pores of the particulate material. No fluid is encapsulated or entrapped within the pores of the material disclosed in *Webb*. In fact, since the objective of *Webb* is to release the water-soluble chemical upon its dissolution, encapsulation or entrapment of the fluid within the pores of the material is contrary to the stated objectives of the reference.

Independent Claims 18, 19, 45, 63, 81 and 87 of Applicants reference treatment or modification of the porous particulate with a glazing material. The concept of glazing is discussed in the bridging paragraph on pages 20 and 21 of Applicants' specification and encompasses use of a "glaze-forming material to form a glaze to seal or otherwise alter the

permeability of the particle surface, so that a given particle is less susceptible to invasion or saturation by a well treatment fluid and thus capable of retaining relatively lightweight or substantially neutrally buoyant characteristics relative to the well treatment fluid upon exposure to such fluid." The stated objectives of *Webb* of dissolution of the water-soluble chemical in well treatment fluids is inapposite to the intent of use of a glazing material.

Independent Claims 1, 3, 45 and 63 recite the porous particulate as exhibiting an inherent or induced permeability. There is no reason to conclude that the particulates disclosed in *Webb* exhibit inherent or induced permeability. *Webb* states that the proppant particles "might be porous, impregnated with a water-soluble chemical. . . ." (bridging paragraph of pages 1 and 2). *Webb* does not state that the porous particulates exhibit inherent or induced permeability. "Inherent or induced permeability" is defined on p. 10, ll. 17-19 of the originally filed specification as particulates wherein "individual pore spaces within the particle are interconnected so that fluids are capable of at least partially moving through the porous matrix". In contrast to such open-celled porosity, wherein internal voids exist in the porous materials, closed-cell porosity refers to porous particulates which do not have interconnected porosity. Closed-cell porous materials have internal voids with closed walls which are not permeable to gas and liquids. There is no reason to conclude, especially in light of the stated objectives of *Webb*, that the porous ceramics of *Webb* have interconnected pore spaces such that fluids are capable of moving through the porous matrix.

Further, there is no reason to conclude that the apparent specific gravity (ASG) of the treated particulate of *Webb* would be less than the ASG of the untreated particulate. The only process disclosed in *Webb* of producing the treated ceramics includes a procedure "to ensure that no air or vapours remain in the pores." (P. 3, ll. 20-21.) Any treating material that is heavier than air would make the ASG of the treated particulate greater (not less) than the ASG of the untreated particulate. The scale inhibitors disclosed in *Webb* – diethylene-triamine penta-(methylenephosphonic acid) - would be heavier than air.

Independent Claim 19 further references the porous particulate being "at least partially filled with air or a gas" and Claims 64 and 89 recite the encapsulation of air within the pores of the particulate. As stated in the paragraph above, *Webb* specifically teaches the need to *remove* air from the pores of the particulate.

Finally, independent Claim 3 specifically recites the porous particulate as being a material selected from "natural ceramic materials, polyolefins, styrene-divinylbenzene copolymers and polyalkylacrylate esters." Claims 81, 87 and 89 recite organic polymeric materials. Such materials are not disclosed in *Webb*. The ceramic materials disclosed in *Webb* are not natural ceramics.

Conclusions. The Examiner is respectfully requested to telephone the undersigned should she deem it prudent to expedite the prosecution of this application.

Respectfully submitted,

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John Wilson Jones
Registration No. 31,380

JONES & SMITH, LLP
2777 Allen Parkway, Suite 800
Houston, Texas 77019
Telephone No.: (713) 528-3100
Facsimile No.: (713) 893-6076

CERTIFICATE OF TRANSMISSION, 37 C.F.R. § 1.6(d)

I hereby certify that this correspondence is being transmitted by facsimile, 571 273-8300, to Examiner Zakiya Bates c/o Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia 22313-1450 on this the 13th day of July 2007.

John Wilson Jones